YUSHKIN, N. P.

Clay pebbles and their formation. Izv Vses geog ob-va 96 no. 1:60-64 Ja-F '64. (MIRA 17:5)

YUSHKIN, N.P.

Characteristics of geology and the genesis of the October natural sulfur deposit. Zap. Tadzh. otd. Vses. min. ob-va no.2:121-131 '64. (MIRA 18:9)

1. Glavnoye upravleniye geologii i Okhrany nedr pri Sovete Ministrov, Uzbekskoy SSR, Tashkent.

YUSHKIN, N.P.

Mineral composition of sulfur ores of the Shorsu deposit.
Uzb. geol. zhur. 8 no.6:30-38 '64. (MIRA 18:11)

1. Institut geologii Komi filiala AN SSSR.

SREBRODOL'SKIY, B.I.; YUSHKIN, N.P.

Determination of the hardness of the native sulfur crystals of the Shorsu and Rozdol deposits. Min. sbor. 18 no.4:437-439 '64. (MIRA 18:7)

1. Gosudarstvennyy universitet imeni Franko, L'vov i Institut geologii Komi filiala AN SSSR, Syktyvkar.

YUSHKIN, N.P.

Reviews and bibliography. Biul. MOIP. Otd. geol. 40 no.3:110-111 My-Je '65. (MIRA 18:8)

YUSHKIN, P.

New wage system for steel workers. Sots.trud no.8:85-88 Ag '56.
(MLRA 9:10)

1. Nachal'nik otdela organizatsii truda zavoda "Krasnyy Oktyabr'."
(Steel industry--Production Standats)
(Wages)

YUSHKIN, P.

Choosing a working schedule in connection with the seven-hour working day. Sots.trud 4 no.6:121-123 Je '59. (MIRA 12:8)

1. Nachal'nik otdela organizatsii truda Stalingradskogo metallurgicheskogo zavoda "Krasnyy Oktyabr'."
(Rest periods)

YUSHKIN, V.N., inzh.

Training personnel to be able to perform duties of other crew members. Rech.transp. 18 no.10:54 O '59. (MIRA 13:2)
(Inland water transportation)

YUSHKIN, V.T., inzh.; SHOR, L.D. inzh.

Using suspension-bridge methods in constructing river crossings.
Stroi. truboprov. 5 no.4:16-18 Ap '60. (MIRA 13:9)
(Gas, Natural--Pipelines)

VELIKOVSKIY, A.S.; YUSHKIN, V.V.; KHUDYAKOV, O.F.; SAVVINA, Ya.D.; STEPANOVA, G.S.

Methods for studying gas-condensate fields. Trudy VNIIGAZ no.17:11-32 '62. (MIRA 15:12)

(Condensate oil wells)

YUSHKIN, V.V.; KONENKOV, K.S.

Apparatus for studying gas-condensate fields. Trudy VNIIGAZ no.17: 33-51 '62. (MIRA 15:12)
(Condensate oil wells—Equipment and supplies)

VEILKOVSKIY, A.S.; YUSHKIN, V.V.; KHUDYAKOV, O.F.; SAVVINA, Ya.D.

Concise data on some gas-condensate fields of the Soveit Union. (MIRA 15:12)
Trudy VNIIGAZ no.17:58-65 '62.
(Condensate oil wells)

VELIKOVSKIY, A.S.; YUSHKIN, V.V.; STEPANOVA, G.S.; KHUDYAKOV, O.F.

Reservoir losses of condensate. Trudy VNIIGAZ no.17:66-74 '62.
(MIRA 15:12)

(Condensate oil wells)

VELIKOVSKIY, A.S.; ARUTYUNOV, A.I.; YUSHKIN, V.V.

Separation of condensate from gas at low temperatures. Trudy VNIIGAZ no.17:99-107 '62. (MIRA 15:12)

(Gas, Natural—Separation)

IVANOV, A.K.; VELIKOVSKIY, A.S.; YUSHKIN, V.V.

Selection of an effective method for extracting and separating condensates based on reservoir and well head conditions, the composition of gas, and transportation systems. Trudy VNIIGAZ no.17: 142-153 '62. (MIRA 15:12)

(Condensate oil wells)

YUSHKIN, V. V.

"The use of the method of electrical modeling to investigate the temperature field at the base of a blast furnace with a broken and with an unbroken floor." Min Higher Education USSR. Moscow Institute of Steel imeni I. V. Stalin. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences).

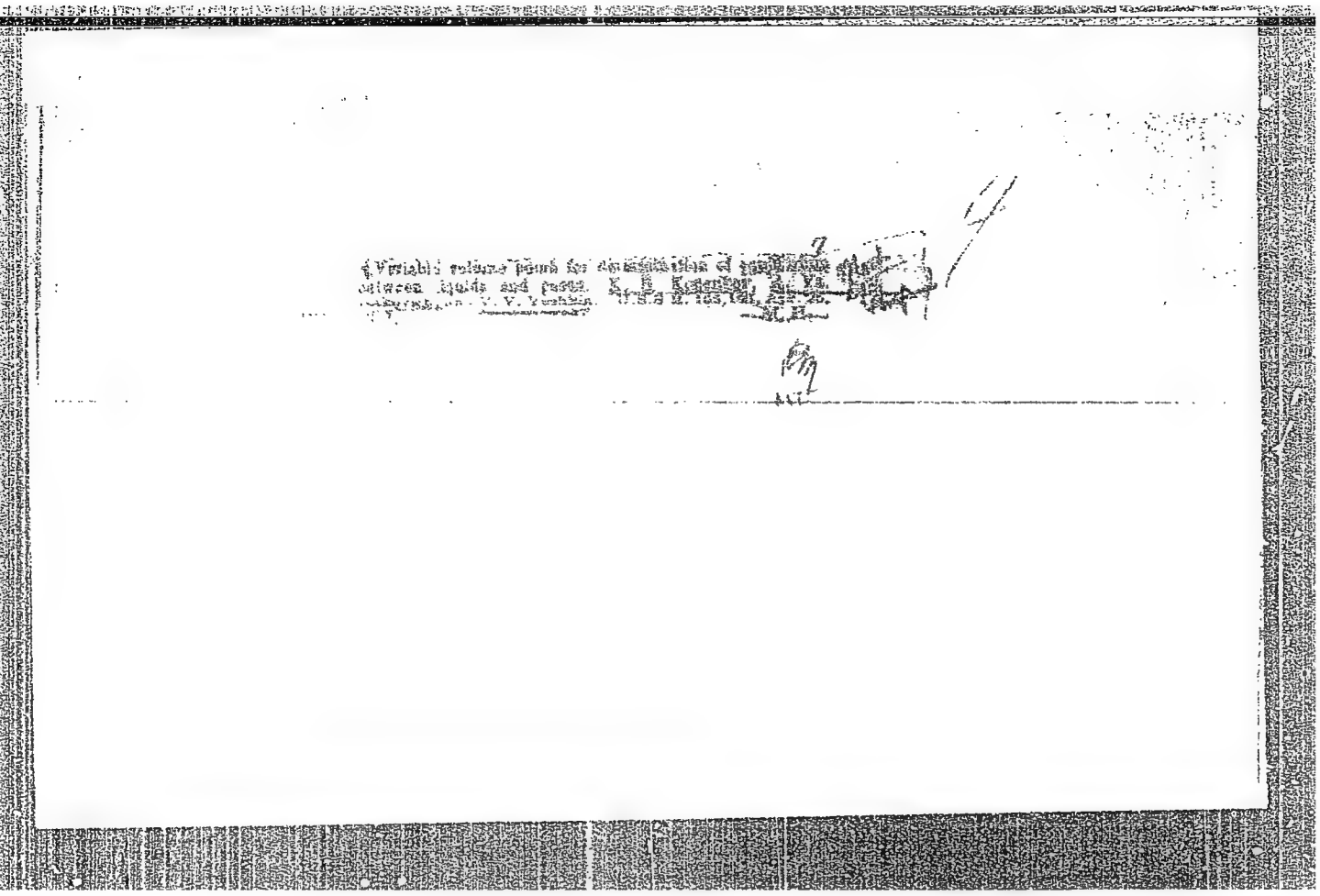
SO: Knizhnaya letopis', No. 16, 1956

VELIKOVSKIY, A.S.; YUSHKIN, V.V.

Gas condensate reservoirs. Gaz.prom.no.10:1-6 O '56. (MIRA 9:10)
(Gas, Natural)

YUSHKIN, V.V.

Studying gas condensate characteristics of the deposit of the Stepnovskii field. Gaz.prom. no.5:6-10 My '57. (MLRA 10:5)
(Gas, Natural)



AUTHOR: Yushkin, V. V. (Stalinsk). 24-4-27/34

TITLE: Investigation of a method of electrical modelling of the temperature field of the hearth bottom and the foundation of a blast furnace. (Issledovaniye metodom elektricheskogo modelirovaniya temperaturnogo polya lesshchadi i fundamenta domennoy pechi).

PERIODICAL: "Izv. Ak. Nauk, Otd. Tekh. Nauk" (Bulletin of the Ac. Sc., Technical Sciences Section), 1957, No.4, pp.156-161 (USSR).

ABSTRACT: With certain simplifying assumptions the heat propagation in the hearth bottom and the foundation of a blast furnace can be described by the Laplace equation in cylindrical coordinates, eq. (1), p.156. The Type I boundary conditions are thereby the respective temperatures at the internal hearth surfaces (1400 C) and at the surface of the ground water (7 C); the Type III boundary conditions are given by the convective heat exchange at the surfaces which are water-cooled by plate coolers or by the outside air. The analogue of the network of thermal resistance is formed by a network of electrical resistances of the integrator. Detailed information on the electrical modelling of thermal problems is contained in the book of L. I. Gutenmakher ("Electrical Modelling", Ac. Sc., 1949). It is pointed out that the change of the thermal conductivity of the materials caused by the rise in the temperature of the hearth bottom and the foundation, which is usually

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Investigation of a method of electrical modelling of the temperature field of the hearth bottom and the foundation of a blast furnace. (Cont.) 24-4-27/34

disregarded, may reach 25 to 40%. In addition, the sharp increase in the heat conductivity in the space above the isothermal surface of liquid iron is usually also not taken into consideration. A method is described in which an attempt is made to consider the change in the heat conductivity of the material caused by the effect of high temperatures. First a model was investigated which consisted of electrical resistances simulating the thermal conductivity of the materials at 20 C. The obtained general picture of the temperature field was then utilised for calculating afresh the resistances in accordance with the new values of the heat conductivity and this process was repeated until the position of the isotherms did not change any more. Thus, the temperature conditions were investigated in the centre of the foundation and also along the radius; furthermore, the depth of penetration of the liquid iron was studied. The here described method is accurate, simple, clear, flexible and enables rapid solution of the problems and, therefore, there is every justification for it to become the basic method of investigation during the design of blast furnaces. The here described investigations were

Card 2/3

Investigation of a method of electrical modelling of the temperature field of the hearth bottom and the foundation of a blast furnace. (Cont.) 24-4-27/34

effected in the Electro-Modelling Laboratory of the Institute for Precision Mechanics and Computer Techniques of the Ac.Sc., USSR. G. K. Kuzminka gave valuable information relating to the execution of the tests.

There are 8 figures, 2 Russian, one American reference.

SUBMITTED: April 3, 1956.

AVAILABLE:

Card 3/3

YUSHKIN, V.V.

VELIKOVSKIY, A.S.; YUSHKIN, V.V.

Condensate losses in gas-condensate pools. Gaz.prom.no.8:4-6 Ag '57. (MLRA 10:9)

(Condensate oil wells)

YUSHKIN, V. V.

133-9-3/23

AUTHOR: Yushkin, V.V., Candidate of Technical Sciences.

TITLE: The Use of Electric Integrator for the Investigation of the Temperature Distribution in the Hearth and Foundations of a Blast Furnace. (Primeneniye elektricheskogo integratora dlya issledovaniya temperaturnogo polya leshchadi i fundamenta domennoy pechi)

PERIODICAL: Stal', 1957, No.9, pp. 779 - 787 (USSR)

ABSTRACT: The paper describes an investigation of the thermo-technical quality of various designs of blast furnace hearths using an electric integrator of the ЭИ-12 type. The investigation was carried out under the direction of L.I. Gutenmakher, Doctor of Technical Sciences in the electro-modelling laboratory of the Academy of Sciences of the USSR. No.1 blast furnace of the Kuznetsk Metallurgical Combine (КМК) was chosen as the object of investigation. The scheme of designs investigated is shown in Fig.1. Principles of application of an electric integrator are outlined (Figs.2-5). The methods of investigating temperature distributions for various designs of hearth, refractory materials (chamotte and carbon), various degrees of the wear of lining and cooling conditions are described in some detail. The distribution of isotherms in hearths of various designs before and after the formation of a bear hole 3 500 mm deep is shown in

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The Use of Electric Integrator for the Investigation of the Temperature Distribution in the Hearth and Foundations of a Blast Furnace.

Fig. 7; calculating scheme for the investigation of temperature changes with the growth of bear hole in the hearth (Fig.8). Temperature changes along the axis of the hearth are shown in Fig.9 and temperature changes along the hearth radius in Fig.10. The depth of penetration of liquid iron for various hearth designs is given in Fig.11. On the basis of the results obtained the following conclusions are drawn: 1) the height of the hearth should be not lower than 0.40 - 0.415 of the height of the foundations; 2) hearths with carbon layer below a chamotte layer, or below a chamotte layer and on the periphery are the most efficient in decreasing the temperature of the upper part of foundations and secure a minimum penetration of liquid iron; 3) hearths with a carbon layer only on the periphery have a somewhat better temperature distribution than chamotte ones but advantages are rather small; 4) hearths with a carbon layer placed on top as well as wholly carbon-lined have the highest temperatures at the base, exceeding the limits permissible for concrete. The distribution of temperatures in the carbon hearth even with a ring or a complete underhearth cooling is less advantageous than that in a chamotte/carbon hearth with a lower

The Use of Electric Integrator for the Investigation of the Temperature Distribution in the Hearth and Foundations of a Blast Furnace.

or lower and peripheral carbon layer; 5) wholly carbon hearths unlike all others are unstable (the rate of their wear increases with increasing depth of bear hole) and therefore require careful control of their erosion; 6) it is necessary to attain a reliable fixing of carbon blocks and meticulous filling of seams between them, as the depth of penetration of liquid iron is larger than the thickness of the blocks manufactured at present; 7) the bottom peripheral cooling is of great importance for lowering the temperature of the bottom of the hearth. Underestimation of the influence of this cooling can lead to large errors in determining the depth of bear hole; 8) the investigation confirmed the correctness of the view on the primary importance of axial removal of heat for decreasing hearth temperature; 9) lower carbon layer intensifies the axial removal of heat; the influence of this layer is approximately equivalent to the action of ring-like underhearth cooling; 10) in order to improve thermal properties of wholly-carbon and combined carbon/chamotte linings, the production of carbon refractories should be such that a maximum heat conductivity is obtained in the longitudinal and a minimum in transverse directions.

The Use of Electric Integrator for the Investigation of the Temperature Distribution in the Hearth and Foundations of a Blast Furnace.

In conclusion, the author remarks on the incorrectness of the statements made by P.I. Loshkin and G.P. Moshkin (Stal', 1956, No.2) that the best temperature distribution is obtained in the hearth fully-lined with carbon blocks and cooled on the periphery and the bottom. The present author's results indicate that the depth of penetration of liquid iron in the hearth with a combination lining with carbon blocks at the bottom, or at the bottom and on the periphery decreases with increasing depth of the bear hole which should lead to stabilisation of the depth of the hole. In the carbon hearth the depth of the hole increases continuously. There are 11 figures and 4 references, 3 of which are Slavic.

ASSOCIATION: Siberian Metallurgical Institute (Sibirskiy Metallurgicheskiy Institut).

AVAILABLE: Library of Congress.

Card 4/4

YUSHKIN, V. V., Cand Tech Sci — (diss) "Methods of ~~investigation of~~ studying gas and gas-petroleum deposits ~~for~~ on the basis of gas condensability." Mos, 1958. 13 pp (All-Union Petroleum-Gas Sci Res Inst), 110 copies (KL, 17-58, ~~129~~ 110)

VELIKOVSKIY, A.S.; ARUTYUNOV, A.I.; YUSHKIN, V.V.

Experience in low temperature separation of condensate and water out of gas from a gas condensate field. Gaz. prom. no.5:10-14 My '58. (MIRA 11:5)

(Gas, Natural)

YUSHKIN, V.V.

Removing samples from gas-condensate wells. Gaz. prom. no. 7:4-6 Jl '58. (MIRA 11:7)

(Condensate oil wells)

YUSHKIN, V.V

11(2) PHASE I BOOK EXPLOITATION SOV/2253

Vsesoyusnyy nemshno-issledovatel'skiy institut prirodnykh gazov

Razrabotka i ekspluatatsiya gazovykh mestorozhdeniy, transport gaza (Development and Exploitation of Gas Fields, Transportation of Gas) Moscow, Gostoptekhizdat, 1959. 353 p. (Series: Its: Trudy, vyp. 5/13/) Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Glavnoye upravleniye gazovoy promyshlennosti pri Sovete Ministrov SSSR.

Eds.: Ye. M. Minskiy and V.N. Raaben; Exec. Ed.: M.P. Martynova; Tech. Ed.: A.S. Polosina.

PURPOSE: This collection of articles is intended for scientists, engineers, and technicians associated with the gas industry.

COVERAGE: The articles discuss the development of gas fields, natural gas recovery, gas transportation, and subsurface gas conservation. Gas field operating conditions are analyzed from the commercial point of view. The author notes that due to the specific geological conditions prevailing in the Soviet Union the application of gas extraction methods of the type used in the USA is not always advantageous. Individual articles discuss problems of the development of gas fields with narrow oil containing fringes, the theory of gas inflow, the study of gas well performance, gas filtration dynamics, and the study of gas condensates. A number of articles are devoted to the study of unstabilized gas flow in pipelines, and discuss theoretical problems connected with the performance of gas ejectors and compressors. The authors also deal with corrosion of the inner surface of gas pipelines. Conclusions made by the authors are supported by mathematical calculations. No personalities are mentioned. References accompany each article.

TABLE OF CONTENTS:

VELIKOVSKIY, A.S., SAVVINA, Ya. D., YUSHKIN, V.V., KHUDYAKOV, O.F.

Studying the potential of the Leningrad gas-condensate field. (MIRA 13:6)
Gaz.prom 5 no.2 3-8 F '60.
(Kuban--Condensate oil wells)

IVANOV, A.K.; VELIKOVSKIY, A.S.; YUSHKIN, V.V.

Processes for the extraction of condensates from gas at gas-condensate fields. Gaz.prom. 7 no.1:15-20 '62. (MIRA 15:1)
(Condensate oil wells)

VOYTSITSKIY, V.P.; YUSHKIN, V.V.

Study of certain problems in the production of condensate in the Shebelinka gas field. Gaz. prom. 7 no.3:4-8 '62. (MIRA 17:8)

YUSHKIN, V.V.

Russkiy Khutor gas condensate field. Gaz. prom. 8 no.7:6-8 '63. (MIRA 17:8)

YUSHKIN, V.V.; KHUDYAKOV, O.F.; SHVADCHAK, N.S.

Investigation of the gas potential of the gas condensate pools of the Bitkov field. Gaz. delo no.12:11-13 '63. (MIRA 17:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza i Ivano-Frankovskaya tsentral'naya nauchno-issledovatel'skaya laboratoriya.

YUSHKIN, V.V.; KHUDYAKOV, O.F.

Phase transformations of the reservoir fluids of the gas-condensate beds of the Russkiy-Khutor North field when it is developed by pressure reduction. Gaz. prom. 9 no.11: 6-9 '64. (MIRA 17:12)

VELIKOVSKIY, A.S.; SAVCHENKO, V.P.; SAVVINA, Ya.D.; YUSHKIN, V.V.; ZYKIN, M.Ya.

Prediction of the petroleum fringe in a gas condensate layer based on the composition of formation gas. Gaz. prom. 10 no.9:1-6 '65. (MIRA 18:11)

YUSHKIN, V.V.; SAVVINA, Ya.D.

Glebovo gas-condensate field. Neft. i gaz. prom. no.4:41-43
O-D '64 (MIRA 18:2)

YUSHKIN, V.V.; SAVVINA, Ya.D.

Nature of the producing horizons of the Russkiy Khutor Central gas field. Gaz. delo no.9:3-9 '64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

YUSHKIN, V.V.; SAVVINA, Ya.D.

Estimating the reserves of stable condensate and its recovery factor. Gaz. prom. 9 no.7:7-11 '64. (MIRA 17:8)

SAVVINA, Ya.D.; YUSHKIN, V.V.

Investigating the Glinskoye-Rozbishevka field for gas condensate. Neft. i gaz. prom. no.2:44-47 Ap-Je '64. (MIRA 17:9)

L 61207-65 EWT(d)/EWP(k)/EWT(l)/EWG(v)/EWA(c)/T-2/EWG(a)-2/EWG(c) JD/JG
ACCESSION NR: AP5007214 S/0286/65/000/003/0099/0099

AUTHOR: Korch, P. A.; Yushkin, Yu. A.

TITLE: Ejector. Class 42, No. 168331

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 99

TOPIC TAGS: gas jet ejector, gas ejector, [illegible]

ABSTRACT: An Author Certificate has been issued for a gas-jet ejector (see Fig. 1 on the Author Certificate No. 166240) which is provided with a mechanism for varying the [illegible] threat area of the discharge nozzle. In a variant, to prevent leakage around the [illegible] the [illegible] rod, the ejector is provided with spring-loaded or other [illegible] [illegible] (see Fig. 1 of the [illegible]). [illegible] art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 21Jan64 ENCL: 01 SUB CODE: AC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 3202

Card 1/2

ACCESSION NR: AP5007214 ENCLOSURE: 01

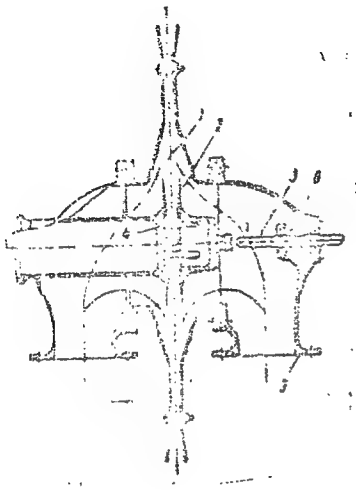

Fig. 1. Gas-jet ejector

1 - Slit nozzle; 2 - movable nozzle piece; 3 - control mechanism rod; 4 - stationary nozzle-piece guide; 5 - suction nozzle; 6 - spring-loaded packing.

Card 2/2

YUSHKIN, Yu. I.

Yushkin, Yu. I. "The development of health protection in Mordvinia during the last 30 years (1917-1947)", Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, pp. 3-33.

SO: U-3261, 10 April 53 (Letopis 'Zhurnal 'nykh Statey No. 11, 1949)

YUSHKIN, Yu. I.

YUSHKIN, Yu. I. "On the diagnosis and treatment of functional hemeralopia", Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, p.50-61, - Bibliogr 11 items.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

YUSHKIN, YU. I.

1331. SCIENTIFIC AND ORGANIZATIONAL BASIS OF THE CAMPAIGN AGAINST TRACHOMA, AND ITS LIQUIDATION IN THE USSR (Russian text) - Yushkin Yu. I. - SARANSK 1956 (152 pages)

A short review of the history of the fight against trachoma in pre-revolutionary Russia and in the USSR is presented. At the end of the fourth 5-year plan period fresh forms of trachoma were almost universally extinguished. General morbidity of trachoma is now greatly reduced. At the beginning of 1950 the trachoma morbidity in the Mordovian ASSR (Autonomous Socialist Soviet Republic) had decreased by 87%, in the Mari ASSR by 83%, in the Chuvash ASSR by 92.1%, in the Udmurt ASSR by 81%, in the Bashkirian ASSR by 83%, and in Tatar ASSR by 72%. The organization of the campaign against trachoma in the Mordovian ASSR is schematically outlined. The details of the work of trachomatous rural nursing units, and the organization of the work of rural medical sectors and regions are thoroughly discussed. The organization of the fight against trachoma in the former Ismael region is outlined. A special chapter is devoted to the discussion of Soviet ophthalmologists' achievements during the last 20 years. The author proposes a new method of reporting the trachomatous patients according to a three-stage system. The author's opinion on the mechanism of repeated follicular expressions in trachoma is laid out. (S)

YUSHKIN, Yu.I.

SHPIL'BERG, G.I., kand.med.nauk; YUSHKIN, Yu.I., kand.med.nauk, zasluzhennyy vrach RSFSR; KOZIKA, V.G. (Odessa)

Timely problems in the development of local health resorts. Vrach. delo no.12:1329-1331 D '57. (MIRA 11:2)

1. Otdeleniye organizatsii kurortov (zav. - G.I.Shpil'berg) Ukrainskogo instituta kurortologii.
(UKRAINE--HEALTH RESORTS, WATERING PLACES, ETC.)

YUSHKIN, Yu.I.; KOZIKA, V.G.

Organization and work of the receiving department of a sanatorium. Vop.kur.,fizioter.i lech.fiz.kul't. 25 no.1:67-69 '60. (MIRA 13:5)

1. Iz Ukrainskogo instituta kurortologii (dir. A.V. Sokolov).
(SANATORIUMS)

YUSHKIS, V.

Yushkis, V. "The problem of diagnosis of female gonorrhea,"
Trudy med. fak. Kaunassk. un-ta, Vol. I, 1948, p. 263-72.
In Lithuanian, Russian abstract

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

YUSHKO, A.V., assistant

Electrocardiographic changes in trichinosis. Zdrav.Belor. 3 no.10:42-44 O '57. (MIRA 13:6)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. I.D. Mishenin) Minskogo meditsinskogo instituta.
(TRICHINA AND TRICHINOSIS) (ELECTROCARDIOGRAPHY)

YUSHKO, A.V., Cand Med Sci -- (diss) "Trichinosis, clinical" Minsk, 1958, 20 pp (Minsk State Med Inst) 200 copies (KL, 42-58, 119)

YUSHKO, A.Y.

Case of repeated infestation with trichinosis. Zdrav. Belor. 5 no.10: 72 O '59. (MIRA 13:2)

1. Iz kafedry gospital'noy terapii (zaveduyushchiy - prof. G.Kh. Dovgyallo).

(TRICHINA AND TRICHINOSIS)

YUSHKO, A.V.; VOLKOV, N.F.

Characteristics of the course of trichinosis. Zdrav. Bel. 8 no.6:63 Je '62. (MIRA 16:8)

1. Iz gospital'noy terapevticheskoy kliniki (zav. - prof. G. Kh. Dovgyallo) Minskogo meditsinskogo instituta.
(TRICHINA AND TRICHINOSIS)

YUSHKO, A.V.

Early chlorosis. Zdrav.Bel. 8 no.11:84-85 N '62.
(MIRA 16:5)

1. Iz kafedry gospital'noy terapii (zav. - prof. G.Kh. Dovgyallo) Minskogo meditsinskogo instituta.
(CHLOROSIS)

ACC NR: AP7002678 SOURCE CODE: UR/0386/66/003/002/0064/0069

AUTHOR: Kormer, S. B.; Yushko, K. B.; Kirshkevich, G. V.

ORG: none

TITLE: Dependence of the refractive index on the density of the solid and liquid phases of shock-compressed ionic crystals. Relaxation time of phase transformation under shock compression

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu, v. 3, no. 2, 1966, 64-69

TOPIC TAGS: ionic crystal, refractive index, alkali halide, compression shock wave, shock wave front

ABSTRACT: The refractive indices of shock-compressed alkali-halide compounds were investigated. For LiF, which remains transparent in the investigated range of pressures up to $P \approx 700$ kbar, the refractive index was determined directly from the paths of the rays in the compressed matter. For NaCl, CsBr, KCl, and KBr crystals, which become opaque behind the shock-wave front, the refractive indices were determined by Fresnel's formulas from the experimentally-measured coefficients of reflection of natural light incident on the front of the shock wave. The dependence of the refractive index on the degree of compression σ (where $\sigma = \rho/\rho_0$ is the running density and ρ_0 the density at $T = 300°K$ and $P \approx 0$) for the crystals LiF, NaCl, and

Card 1/5 UDC: none

ACC NR: AP7007678

CsBr, which do not experience polymorphic transformations in the investigated range of pressures, is represented in Fig. 1 for the region $\sigma > 1$. So long as the shock compressed crystal remains in the solid phase, the refractive index changes relatively little with the density. The refractive index increases appreciably

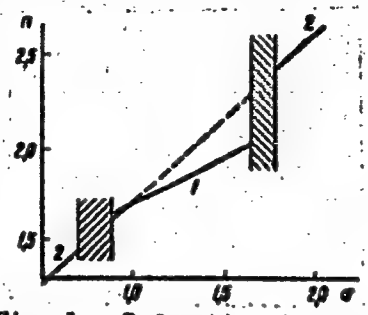

Fig. 1. Refractive index of ionic crystals vs. density in the solid and liquid phases

when the melting is in a compressed state (see Fig. 1). The experimental points obtained for the liquid phase of the crystals CsBr, KCl, and KBr fit the relation (1) quite well, but only if $dn/d\sigma$ is approximately 15 - 17 times larger than in the solid phase. At normal pressure the change in density of the alkali halides in the liquid

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ACC NR: AP7007678

state changes the refractive index by about 1.5 times more than in the solid state. In investigating the reflectivity of the shock-wave front in the solid phase of KCl and KBr it was noted that at $P \approx 140$ kbar the reflection coefficient is 2 - 3 times smaller than that corresponding to a relation of the type (1) for $n(\sigma)$, with values of $dn/d\sigma$ that follow from whereas at $P \approx 200$ kbar for KCl and 260 kbar for KBr the obtained results are close to those expected. We recall (see Sec. 1 and the table) that for other crystals the results of the measurements were in satisfactory agreement with earlier data. It is natural to relate the indicated difference with the polymorphic transformation of KCl and KBr into the CsCl structure, which occurs at $P \approx 20$ kbar assuming that up to $P \leq 140$ kbar the phase transformation of KCl and KBr occurs after a time $\tau > 10^{-11}$ sec, the light will be reflected from a layer of matter situated on the front of the shock wave in a metastable state (point 1, Fig. 2), corresponding to the dynamic adiabat of the first phase 6). Since the latter is steeper than the adiabat of the second phase, a smaller density jump on the shock-wave front corresponds also to a smaller refractive index. The non-equilibrium states of the first phase of KCl and KBr (point A, Fig. 2), determined from the shock-wave velocity, from the dependence (1) with $dn/d\sigma$ as given in the table, and from the measured reflection coefficient, are shown in Fig. 2. For KCl the point obtained lies somewhat to the left of the first-phase adiabat calculated from the equation of state. With increasing pressure, the temperature increases (for KCl, T = 1300°K at P = 136 kbar and T = 2100°K at P = 200 kbar), the relaxation time decreases, and the phase transformation takes place in a layer thinner than $\lambda/2\pi$ (λ = wavelength of the incident light). In this case the refractive index will correspond to the

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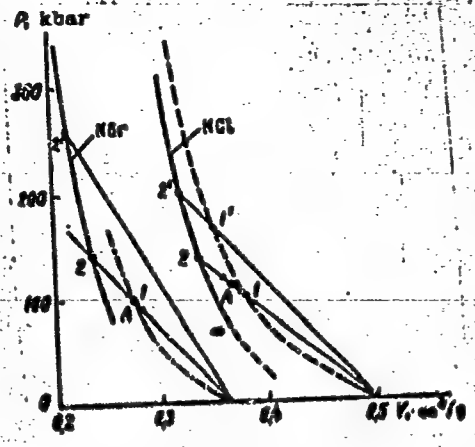

Fig. 2. Equilibrium and non-equilibrium dynamic adiabats of KCl and KBr. ——— calculated after [12,3], ------ calculated after [3], -.-.-. interpolation, -o-o-o present experiments.

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total jump in volume behind the front of the shock wave (point 2', Fig. 2). Considering that the values of $dn/d\sigma$ obtained for phase II turned out to be close to the values for phase I, the measured reflection coefficients were close to those expected. Thus, upon shock compression with P = 200 = 260 kbar, the polymorphic transition in KCl and KBr takes place within a time $\tau < 10^{-11}$ sec. (The polymorphic transition, interesting, has no effect on the $n(\sigma)$ dependence of these ionic crystals.) The same time is characteristic also of melting in the shock-wave front, since the refractive index (reflection coefficient) experiences a jump at pressures corresponding to the transition of the solid phase into liquid (see Fig. 1). Orig. art. has: four formulas.

SUB CODE: 20 / SUBM DATE: 01Nov65 / ORIG REF: 005
OTH REF: 003

Card 5/5

25335
S/020/61/138/006/011/019
B104/B214

24.3950 also 2108

AUTHORS: Zel'dovich, Ya. B., Academician, Kormer, S. B., Sinitsyn, M. V., and Yushko, K. B.

TITLE: An investigation of the optical properties of transparent substances at superhigh pressures

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 6, 1961
1333 - 1336

TEXT: The propagation of strong shock waves in transparent media permits to study the properties of substances at pressures of some thousands or millions of atmospheres (Zel'dovich et al., DAN 122, no. 1, 48(1958)). At pressures not too high if the compressed substance remains transparent throughout its thickness the refractive index may be determined geometrically. The authors first studied water, plexiglass and glass. A diagram of the experimental set-up with which the reflection of light by the shock wave can be determined, is shown in Fig. 1. The reflected rays II - V were recorded by a fast photochronograph. Water was found to remain transparent under pressures of 89 - 144 thousand atmospheres. Glass becomes opaque at a pressure of 200,000 atmospheres. The exact values

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An investigation of the optical...

for water are collected in Table 1. In the discussion of the results the authors used the data of V. Raman and K. S. Venktaraman (Proc. Roy. Soc., 171, 137 (1939)) and gave the following relation for the temperature and density dependence of the refractive index: $n = 1.334 + 0.334(\rho - 1) - 1.90 \cdot 10^{-5} T\rho$ (1), T being in °C. Fig. 3 shows graphically a comparison of the values of n calculated by (1) with those determined by geometrical methods. The dotted line in this diagram corresponds to the Lorentz - Lorenz formula. The deviations of the results obtained photometrically can be partly explained by the increase in viscosity of water at high pressure. L. V. Al'tshuler (Ref. 6) had detected a decrease of the intensity of the reflected light at pressures above 115,000 atm and shown it to be related to the phase transformation at this pressure. This effect could not be detected by the present authors. They are of the opinion that water remains transparent up to 300,000 atm. A. G. Oleynik, V. N. Mineyev, and R. M. Zaydel' are mentioned. The authors thank V. P. Arzhanov, G. V. Krishkevich for carrying out the experiments and A. G. Ivanov, R. M. Zaydel', A. G. Oleynik, and V. N. Mineyev for valuable discussions. There are 3 figures, 1 table, and 10 references: 5 Soviet-

Card 2/5

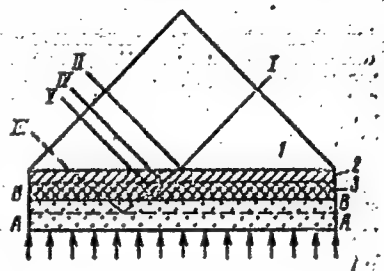
An investigation of the optical...

bloc, and 5 non-Soviet-bloc.

SUBMITTED: March 30, 1961

Fig. 1: Experimental set-up.

Legend: I) incident ray. II) and III) light reflected from the stationary boundary between plexiglass and water. IV) light reflected from the front of the shock wave. V) light reflected from the moving boundary between compressed water and compressed plexiglass. 1) plexiglass prism. 2) water in front of the shock wave front. 3) water compressed in the shock wave.



Card 3/5

ACCESSION NR: AP4047941 S/0020/64/158/005/1051/1053

AUTHOR: Zel'dovich, Ya. B. (Academician); Kormer, S. B.; Krishkevich, G. V.; Yushko, K. B.

TITLE: Study on the smoothness of a detonation front in a liquid explosive

SOURCE: AN SSSR, Doklady, v. 158, no. 5, 1964, 1051-1053

TOPIC TAGS: liquid explosive, explosive, detonation, detonation front, nitric acid, dichloroethane

ABSTRACT: The smoothness of a detonation front propagating in a stoichiometric concentrated nitric acid-dichloroethane mixture was studied by recording the light signals reflected from the detonation and shock fronts by means of photometry. The liquid explosive mixture was placed in a cuvette so that it was in contact with an organic glass prism having a refractive index differing considerably from that of the explosive. The detonation was initiated with a 50/50 trotyl-hexogen charge 100 mm long and 120 mm in diameter. A detonation velocity

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ACCESSION NR: AP[illegible]

of 5.2 ± 0.1 km sec and a reflection coefficient of 1.8 ± 0.1% were measured at an explosive temperature of -20C. Comparison of the reflection coefficient for a Chapman-Jouguet detonation showed that the detonation was normal. The reflection was mirror-like and was sharply delineated. It was concluded that in stoichiometric HNO_3-dichloroethane mixtures, a normal detonation wave is obtained with a plane shock front preceding the reaction front, and that inhomogeneities are absent. This result is in contrast to previous findings by Dremin, Kozanov, and Trofimov, who found inhomogeneities in the reaction front. [illegible] art. has: 3 figures

ASSOCIATION: None

SUBMITTED: [illegible] ENCL: 00 SUB CODE: WA

NO REF SOV: 010 OTHER: 000 ATD PRESS: 3122

ESTELEV, N.P.; ROSTOVTSEVA, L.F.; YUSHKO, L.A.

Data on the stratigraphy, lithology, and facies of Tournai and lower Visé sediments in the Tatar A.S.S.R. Trudy VNIGNI no.14: 224-244 '59. (MIRA 12:10)
(Tatar A.S.S.R.--Geology, Stratigraphic)

YUSHKO, L.A.

New data on the distribution of peridians in the central regions of the European part of the U.S.S.R. Mat.po geol.i pol.iskop. tsentr.raion.evrop.chasti SSSR no.5:98-101 '62. (MIRA 16:6)
(Peridiniidae, Fossil)

YUSHKO, M., zasluzhennyy uchitel' shkol RSFSR (Bezhitsa); OL'SHEVSKAYA, T. (Bezhitsa)

Use of self-made models in solving stereometric problems. Mat. v shkole no.6:14-16 N-D '54. (MLRA 7:11)
(Mensuration)

MOROZ, P.G.; YUSHKO, M.M.

Foamed concrete roof slabs for industrial buildings. Transp. stroi. 12 no.5:52 My '62. (MIRA 15:6)

1. Glavnyy tekhnolog tresta Dneprotransstroy (for Moroz).
2. Nachal'nik tsentral'noy laboratorii trest Dneprotransstroy (for Yushko).

(Lightweight concrete) (Roofing, Concrete)

Yushko, N. A.

"Intrasternal Transfusions of Compatible and Incompatible Blood in Certain Eye Diseases," by N. A. Yushko, Candidate of Medical Sciences, Chair of Eye Diseases (head, Prof N. V. Ochapovskaya), Kuban Medical Institute, Vestnik Oftalmologii, No 3, May/Jun 57, pp 37-39

Twenty-six transfusions were administered to 10 patients ranging from 7 to 60 years in age and suffering from various eye diseases.

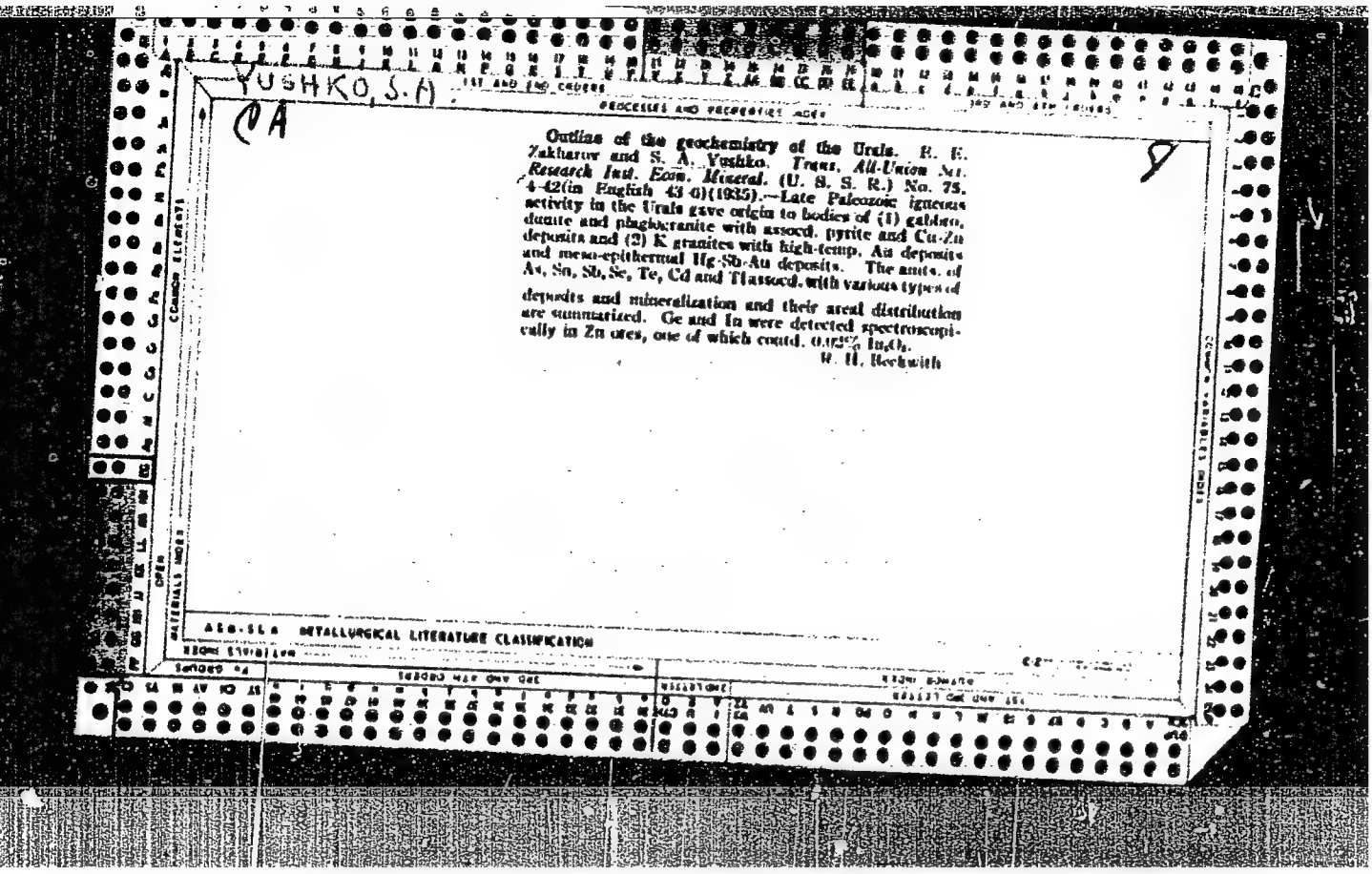
A review of the histories of the ten patients indicates that intrasternal blood transfusions contributed to improved local symptoms in the eyes. As a result this therapy had a beneficial effect on nine patients whose eye sight became more acute, regardless of the severity of the disease during which the transfusions were administered.

Yu. A. Dykhno points to the significant stimulating effect of intrasternal blood transfusion and its greater effect as compared with intravenous blood transfusion, regardless of the smaller amount of blood transfused.

The administration of heterogenous blood into the extremely sensitive receptor zone of the sternum had a more pronounced effect than the usual transfusion.

Intrasternal blood transfusions in conjunction with other methods of therapy are quite possible. (U)

Sum No 1467



YUSHKO, S.A.

CA

Outline of the geochemistry of the Urals. B. E. Zakharov and S. A. Yushko. *Trans. All-Union Sci. Research Inst. Econ. Mineral.* (U. S. S. R.) No. 75, 4-42(in English 43-6)(1935).—Late Paleozoic igneous activity in the Urals gave origin to bodies of (1) gabbro, diorite and plagiogranite with assocd. pyrite and Cu-Zn deposits and (2) K granites with high-temp. Au deposits and meso-epithermal Hg-Sb-Au deposits. The assocs. of As, Sn, Sb, Se, Te, Cd and Tl assocd. with various types of deposits and mineralization and their areal distribution are summarized. Ge and In were detected spectroscopically in Zn ores, one of which contd. 0.02% In. G. H. Beckwith

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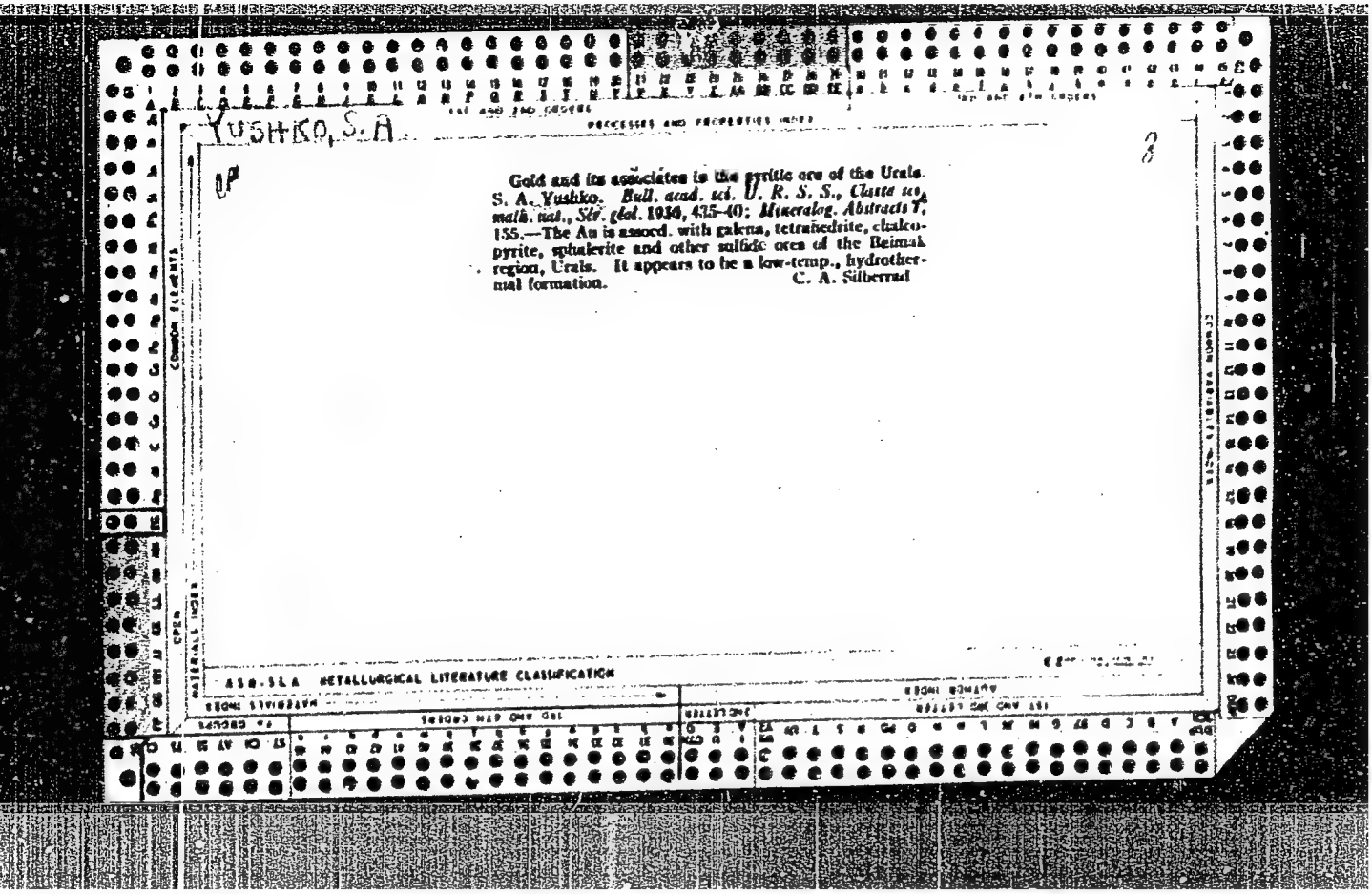
METALLURGICAL LITERATURE CLASSIFICATION

YUSHKO, S. A., jt. au.

The Karpushinskii copper and zinc deposits in the Central Urals, 1936. 110 p.
(49-43264)

TN446. R923



YUSHKO, S.A.

Gold and its associates in the pyritic ore of the Urals. S. A. Yushko. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. géol.* 1936, 435–40; *Mineralog. Abstracts* 7, 155.—The Au is assocd. with galena, tetrahedrite, chalcopyrite, sphalerite and other sulfide ores of the Beimak region, Urals. It appears to be a low-temp., hydrothermal formation. C. A. Silberrad

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

YUSHKO, S. A.
Ca

The imprint method in mineralography. S. A. Yushko. *Bull. acad. sci. U. R. S. S., Sér. géol.* **1939**, No. 3, 137–41; *Khim. Referat. Zhur.* **1940**, No. 2, 64–5. —Press tightly to the polished surface of the sample a photographic paper treated with thiosulfate to remove Ag salts and with CH_2O to fix the gelatinized layer, and wetted with a solvent suitable for the given mineral. To detect cations connect the sample to the pos. terminal of a 3-12-v. dry battery and the photographic paper to the neg. terminal. To detect anions reverse the terminals. After passing the current for from 20 sec. to 2 min., immerse the paper in a "developing" soln. consisting of a reagent that forms a color with the expected element in the mineral. A characteristic imprint of the element is obtained on the paper. Approx. 5–6 imprints can be made from the same mineral sample. The sample can be reused after polishing. A table of the most common reactions for Bi, W, Co, Mn, Cu, Mo, As, Ni, Sn, Pb, S, Ag, Ti and Zn is given. The solvents, developers and colors of the imprints are given.
W. R. Henn

[illegible], S. A.

The methods of studying ores under a microscope and by reflected light 2. dop. i perer. izd. Moskva, Gos. izd-vo geol. lit-ry, 1949. 302 p. (50-15879)

QE364.I8 1949

1. Microscope and microscopy. 2. ores

13392

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 645 - I

BOOK

Call No.: QE389.5.I8

Author: YUSHKO, S. A.

Full Title: NEW METHODS FOR MINERALOGICAL STUDY OF OXIDIZED ORES

Transliterated Title: Novyye metody mineralogicheskogo issledovaniya okislennykh rud

PUBLISHING DATA

Originating Agency: None

Publishing House: State Publishing House of Geological Literature

Date: 1953 No. pp.: 48 No. of copies: 5,000

Editorial Staff: None

PURPOSE: This booklet is recommended by P. Postnov, Chief of the Technical Administration of the Ministry of Geology, as a manual for workers in mineralogical-petrographical laboratories and for surveying parties and expeditions.

TEXT DATA

Coverage: This is a short booklet which gives to the mineralogical prospector the information necessary to identify by chemical means the presence of some metals in the oxidized (hypergene) ores. It should be used as an auxiliary manual for a portable field laboratory chemical kit. It explains the spot method of ore sample analysis, chemical reactions forming color films on mineral surfaces,

Novyye metody mineralogicheskogo issledovaniya okislennykh rud

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the imprint method of using some reagents on a polished mineral surface and then printing its impression on photographic paper, and finally, the microscopic method of identification of minerals. Tables, charts, photos and color pictures supplement the text.

No. of References: Russian 27 (1937-1951)

Facilities: Moscow Geological Prospecting Institute im. S. Ordzhonikidze.

2/2

YUSHKO, S.A.; PERLIN, S.S., redaktor; POPOV, N.D., tekhnicheskiy redaktor.

[New methods in the mineralogical study of oxidized ores] Novye metody mineralogicheskogo issledovaniia okislennykh rud. Izd.2-oe. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1955. 52 p. (MIRA 9:6)

(Mineralogy, Determinative)

YUSHKO, S.A.; BORISHANSKAYA, S.S.; SPIRINA, N.I., redaktor; GUROVA, O.A., tekhnicheskiy redaktor.

[Tables for the identification of minerals in alluvial sands] Tablitsa diagnosticheskikh priznakov mineralov v shlikhakh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geologii i okhrane nedr. 1955. 59 p. (MIRA 8:5)
(Mineralogy, Determinative)

[redacted], S. A.

Title : Critique and discussion. Foreign books on structures and textures of ores

Periodical : Izv. AN SSSR. Ser. geol. 1, 110 - 114, Jan 1956

ISAYENKO, M.P.; YUSHKO, S.A.

"Atlas of ore structures and textures." S.I. Taldykin, N.F. Goncharik, G.N. Enikeeva, B.B. Rozina. Reviewed by M.P. Isaenko, S.A. IUshko. Izv.AN SSSR. Ser.geol. 21 no.9: 115-116 S '56. (MLRA 9:11)

1. Moskovskiy geologo-razvedochnyy institut imeni Sergo Ordzhonikidze.
(Ores)

Yushko S.A.

AUTHOR: Yushko, S. A. 5-6-25/42

TITLE: Mineralogy of the Lead-Zinc Mineralization of the Karatau Range (Mineralogiya svintsovo-tsinkovogo orudeneniya khrebta Karatau)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskiy, 1957, # 6, p 139 (USSR)

ABSTRACT: The mineralization is represented by the three main types of ores: ingrained, streak-ingrained and aggregative. By the shape of ore bodies, the mineralization is divided into blanket deposits (ingrained and streak-ingrained ores), crossing zones (streak-ingrained ores) and lens-shaped vein bodies (aggregative ores). More than 50 ore-forming minerals have been discovered in the ores. The primary minerals are as follows: galenite, sphalerite, wurtzite, pyrite, marcasite chalcopyrite, chalcosine, tennantite, sulvanite, freibergite, argentite, native silver, cinnabar, ankerite, dolomite, calcite, quartz and barite. Cinnabar was detected only in the Terekty deposit in the form of relics in the oxidized zinc ores.

AVAILABLE: Library of Congress

Card 1/1

YUSHKO, S.A.

Geochemical characteristics of lead-zinc ores in the Kara-Tau.
Izv. vys. uchab. zav.; geol. i razv. 2 no.2:76-90 F '59.
(MIRA 12:10)

1.Moskovskiy geologorazvedochnyy institut im. S. Ordzhonikidze.
Kafedra poleznykh iskopayemykh.
(Kara-Tau--Lead ores) (Kara-Tau--Zinc ores)

YUSHKO, S.A.

Qualitative mineralogical characteristics of principal types of ores in Kara-Tau lead-zinc deposit. Izv.vys.ucheb.zav.: geol.i razv. 2 no.5:87-97 My '59. (MIRA 12:12)

1. Moskovskiy geologorazvedochnyy institut im. S.Ordzhonikidze.
(Kara-Tau--Mineralogy)

YUSHKO, S.A.

Basic mineral associations and their structural features in the Kara-Tau lead-zinc deposits. Izv.vys.ucheb.zav.;geol. i razv. 3 no.2:77-91 F '60. (MIRA 15:5)

1. Moskovskiy geologorazvedochnyy institut Ordzhonikidze.
(Kara-Tau--Mineralogy)

YUSHKO, S.A.; IFANTOPULO, T.N.

Cinnabar in oxidized lead and zinc ores of southern Kazakhstan.
Trudy Min. muz. no.11:211-214 '61. (MIRA 16:7)

(Kazakhstan--Cinnabar)

YUSHKO, S.A.

Sulvanite in zinc-lead ores of the Kara-Tau. Trudy Min. muz. no.11:215-219 '61. (MIRA 16:7)

(Kara-Tau--Sulvanite)

YUSHKO, S.A.

First finds of the wulfenite in complex metal deposits in the Kara-Tau. Trudy MGRI 37:102-107 '61. (MIRA 15:1)
(Kara-Tau--Wulfenite)

YUSHKO, S.A.; ALEKSANDROVA, I.T.

Use of structural etching for identifying some oxidated zinc minerals. Trudy MGRI 37:108-110 '61. (MIRA 15:1)
(Zinc) (Minerals--Analysis)

YUSHKO, S.A.

Lead and silver minerals in lead and zinc ores of the Kara-Tau. Izv. vys. ucheb. zav.; geol. i razv. 4 no.1:25-40 Ja '61. (MIRA 14:7)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.
(Kara-Tau—Ore deposits)

YUSHKO, S.A.

New genetic classification of textures and structures in ores.
Sov.geol. 5 no.2:100-121 F '62. (MIRA 15:2)

1. Moskovskiy geologorazvedochnyy institut imeni S.Ordzhonikidze.
(Ores--Classification)

MALKIN, I.M., kand.tekhn.nauk; ALBOROV, Z.B., gornyy inzh.; YUSHKO, S.P., inzhener-mekhanik

Improving boring with sinker drills at the Leninogorsk Combine. Gor.zhur. no.3:36-38 Mr '60. (MIRA 14:5)

1. Leninogorskiy polimetallicheskiy kombinat.
(East Kazakhstan Province—Rock drills)

ALIBOROV, Z.B., gornyy inzhener; YUSHKO, S.P., inzhener-mekhanik

Recent developments by the special design section of the Leninogorsk Combine. Gor.zhur. no.5:72 My '61. (MIRA 14:6)

1. Leninogorskiy kombinat.
(Rock drills)

ALEOROV, Z.B.; YUSHKO, S.P.

Drilling operations in the mines of the Leninogorsk Combine. Vzryv. delo no.46/3:139-149 '61. (MIRA 15:1)
(Leninogorsk region (East Kazakhstan Province)--Boring)

ALBOROV, Z.B.; YUSHKO, S.P.

New machines for drilling deep slim holes in hard rock. Vzryv. delo no.46/3:150-160 '61. (MIRA 15:1)
(Rock drills)

LEBEDEV, I.I.; YUSHKO, S.P.

Mining and ore dressing equipment of the East Kazakhstan Machine Manufacturing Plant. Gor.zhur. no.2:59-61 F '64. (MIRA 17:4)

1. Glavnyy inzhener Vostochno-Kazakhstanskogo mashinostroitel'nogo zavoda (for Lebedev). 2. Glavnyy konstruktor Vostochno-Kazakhstanskogo mashinostroitel'nogo zavoda (for Yushko).

YUSHKO, T.L.

Reinforced concrete slabs for crossings. Put' i put.khoz. 4 no.8: 25 Ag '60. (MIRA 13:7)

1. Nachal'nik distantsii puti, stantsya Apostolovo, Donetskoy dorogi.
(Railroads--Crossings)
(Reinforced concrete construction)

YUSHKO, T.L.

Ballast looseners for tie tampers. Put' i put.khoz. 4 no.10:16 O '60. (MIRA 13:9)

1. Nachal'nik distantsii, st. Apostolovo, Stalinskoy dorogi.
(Railroads--Equipment and supplies)

YUSHKO, T.L.

Tractor mounted generator and saw. Put' i put.khoz. 7 no.4:39 '63. (MIRA 16:3)

1. Nachal'nik Apostolovskoy distantsii puti Pridneprovskoy dorogi.
(Tractors)

YUSHKO, V.I., inzh.

Construction of automatic control systems for uniflow hydrodynamic diesel locomotive transmission systems. Trudy MIIT no.149:27-39 '62. (MIRA 16:5)

(Diesel locomotives--Transmission devices)